

the Schuylkill, but, from the rising of its floor, almost obliterated beyond Wayne. The limestone is narrow and rarely visible west of West Conshohocken, but at points distant respectively as follows: Gulf 1½; Stacker's 2½; and Pechin's 3 miles from the Schuylkill it appears in place, beyond which occasional sink-holes indicate its underlying. Northwest of West Chester it once more appears accompanied by the same schists as form much of the floor of Cream Valley, and which can be followed the whole distance.

Beyond this, and in almost the same line outcrops are numerous, accompanied by the same rocks until we reach the great outcrops near Doe Run in middle Chester Co., where, again, the existence of the Cambrian south of the limestone is universally admitted.

He could not, therefore, admit the futility of all endeavors to discover a southerly synclinal rise of the quartzite along the South Valley Hill, but would submit that if in a lineal distance of about thirty miles, section lines be drawn a mile apart, and more than one-half of these show an orderly succession from the outside to the center, while the others show in part the same with the remainder concealed by surface soil, the evidence of a simple synclinal is incontrovertible. It is only by the assumption that rocks, which anyone who seeks may find, do not exist, that the necessity of a fault becomes apparent. It is true that the sandy mica schists, at times garnetiferous, present a difficulty, but if these be divorced from the South Valley Hill hydromica schists with which they have no connection, and be regarded as a part of the Cambrian, and the Limestone, also Cambrian, as Walcott's recent discoveries seem to indicate, the objection vanishes. It is certainly true that in Chester County the limestones are both underlaid and overlaid with schists and gneisses, among which, close to, but not in contact with the limestone, so far as he had seen, occurs at numerous localities the characteristic Cambrian Sandstone with its micaceous parting, its rhomboidal jointing and its minute and usually disjointed tourmalines. One of the most remarkable facts is the wonderful uniformity of this rock from numerous and widely scattered outcrops over an area of more than fifty miles in length, and ten miles in greatest breadth. Indeed so exactly alike is the rock that it is impossible to determine the locality by inspection of the specimens. The specimens shown to-night verify this.

---

DECEMBER 13.

The President, GENERAL ISAAC J. WISTAR, in the chair.

Thirty-one persons present.

A paper entitled "The Principle of the Conservation of Energy in Biological Evolution, a Reclamation and Critique," by John A. Ryder, was presented for publication.

MR. JOS. WILLCOX read a paper entitled "A Theory of the Origin and Development of the Earth and Heavenly Bodies." (No abstract presented for publication.)

---

DECEMBER 20.

The President, GENERAL ISAAC J. WISTAR, in the chair.

One hundred and nineteen persons present.

Papers under the following titles were presented for publication:—

"The Birds of British Columbia and Washington, observed during the Spring and Summer of 1892." By Samuel N. Rhoads.

"Extra Morainic Drift of the Susquehanna, Lehigh and Delaware Valleys." By G. Frederick Wright.

PROF. G. F. WRIGHT made a communication, illustrated by lantern slides, on the evidence of the existence of paleolithic man in America. (No abstract presented for publication.)

---

DECEMBER 27.

The President, GENERAL ISAAC J. WISTAR, in the chair.

Two hundred and forty-one persons present.

The following were ordered to be printed:—